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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,761	01/09/2004	William Roy BURKE	05111.0102.DVUS03	1760

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EXAMINER

RAO, G NAGESH

ART UNIT PAPER NUMBER

1722

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,761

Applicant(s)

BURKE, WILLIAM ROY

Examiner

G. Nagesh Rao

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 1) Claims 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nissel (US Patent No. 3,959,431).

Nissel 431 teaches an apparatus (Figure 1) where there is a mixer (21) having a discharge end, and an extrusion die having a die inlet that is connected to the discharge end of the mixer, a die exit dimensioned to have a cross-section that is capable of producing a product similar to dimensioned finished gypsum wallboard core, and there being a manifold disposed between the die inlet and the die exit (22,24,25, and 29). The die inlet of the extrusion die has a cross sectional area that is substantially the same as that of the mixer discharge end, and the die exit has a rectangular cross-section. Furthermore there being a secondary inlet (37) that is connected to and in fluid communication with the extrusion die as seen in Figure 1 capable of being used for the introduction of at least one gypsum slurry additive which may be an emulsion or fluid directly to the extrusion die so that the gypsum slurry additive can be added to a gypsum slurry passing through the extrusion die, which is interpreted as a recitation of intended use.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2) Claims 1-10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen (US Patent No. 5,798,151) in view of Edwards (US Patent No. 3,821,868).

Andersen 151 teaches an apparatus (Figure 6) where there is a mixer (24) having a discharge end, and an extrusion die having a die inlet that is connected to the discharge end of the mixer, a die exit dimensioned to have a cross-section that is capable of producing a product similar to dimensioned finished gypsum wallboard core, and there being a manifold disposed between the die inlet and the die exit (22,24,25, and 29). The die inlet of the extrusion die has a cross sectional area that is substantially the same as that of the mixer discharge end, and the die exit has a rectangular cross-section. Also the extrusion die has at least one secondary inlet (Figure 18 Element 58 and Figure 14 Elements 80 and 78)

connected to and in fluid communication with the extrusion die (34) that is capable of the introduction of at least one gypsum slurry additive, which may be an emulsion or fluid directly to the extrusion die, so that the gypsum slurry additive can be added to a gypsum slurry passing through the extrusion die, which is interpreted by the examiner as a recitation of intended use. There being commonly known in the art to have a substantially flat movable adjacent to the die exit (Col 3 Lines 46-68 and Col 4 Lines 1-3) and a dryer means (Col 53 Lines 15-29). The mixer furthermore capable of being comprised of a twin screw continuous mixer or a single screw mixer (Col 43 Lines 53-63 and Figure 6).

Although the gypsum material is capable of being dimensioned to have a ratio of width to thickness of about 48:1 to 216:1, thus in translation various dimensions of die sizes to extrude out the desired shape of the extruded sheets of material which is interpreted as being resultant effective variables, it is not explicitly taught as such by Andersen 151.

It would have at the time of the invention been obvious to one with ordinary skill in the art to modify the teachings of Andersen 151 by selecting dimensions to match the product of Edwards 868, where it is taught that it is well known in the gypsum art to have wall board, of drywall, of decorating paneling, or the like; and, in one preferred embodiment of the present invention, that panel is 8 feet high, 4

feet wide, and three-eighths of an inch thick -- and thus has dimensions that are standard in the construction industry (Col 8 Lines 34-59).

Therefore reinforcing the concept that the ratio to width dimension of applicant's claimed invention is view as a resultant effective variable and that the art taught by Andersen 151 and Edwards 868 more than teaches this capability and reasonability to have such a known limitation.

3) Claims 11-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen (US Patent No. 5,798,151) in view of Edwards (US Patent No. 3,821,868) in further view of Pearson (US Patent No. 3,832,250) in further view of Kinkade (US Patent No. 3,527,447).

From the aforementioned Andersen 151 pertains to an apparatus for extruding flat sheets of material such as gypsum wallboard material. And when combined with Edwards 868 teaches that it is known to have die dimensions that are known to be capable of extruding product at a 48:1 to 216:1 ratio of width to thickness.

Although Andersen 151 teaches about a drying means for curing the extruded material it fails to teach the use of a convection drier means.

Pearson 250 pertains to an apparatus for producing gypsum flat sheet board materials where in element 57 of Figure 1, it is taught to use a convection drier means.

The combined teachings of Andersen 151 and Pearson 250 fail to teach the use of a microwave heating means as an alternative to the convection drier means.

Kinkade 447 pertains to a preparation of calcined gypsum material, where it is taught that microwaves could be used to treat and cure the extruded material (Col 3 Lines 19-37).

It would be obvious at the time of the invention to one with ordinary skill in the art to replace the heating means taught in Andersen 151 with that of what is taught in Pearson 250 or Kinkade 447 depending on the desired heating means results the operator of the device wishes to obtain, since both heating means have been well known and commonly used in the art for decades.

4) Claims 17-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Nissel (US Patent No. 3,959,431) in view of Andersen (US Patent No. 5,798,151) in further view of Edwards (US Patent No. 3,821,868).

Nissel 431 from the aforementioned taught an apparatus (Figure 1) where there is a mixer (21) having a discharge end, and an extrusion die having a die inlet

that is connected to the discharge end of the mixer there being a manifold between the inlet and outlet, and a die exit dimensioned to have a cross-section in rectangular form.

The specified dimensions of the rectangular form of the die cross-section are not taught in Nissel 431.

However in an apparatus pertaining to the extrusion of flat sheets of material, Andersen 151 teaches various sized dimensions that would be known to use in the die size of the material, given to its industrial state of use as well teaching that the sizes of extruded material although due to the size of the die are a resultant effective variable.

It would be obvious at the time of the invention to one with ordinary skill in the art to modify the teachings of Nissel 431 with that of Andersen 151, to be able to transform the apparatus into a more industrial size of material handling.

The hypothetical teachings of Nissel 431 and Andersen 151 are further reinforced by the teachings of Edwards 868 as discussed below.

Edwards 868 teaches that it is well known in the gypsum art to have wall board, of drywall, of decorating paneling, or the like; and, in one preferred embodiment of the present invention, that panel is 8 feet high, 4 feet wide, and

three-eighths of an inch thick -- and thus has dimensions that are standard in the construction industry (Col 8 Lines 34-59).

Therefore at the time of the invention it would be obvious to one with ordinary skill in the art to modify the teachings of Nissel 431 and Andersen 151 with that of Edwards 868 to reinforce the idea that is well known to manufacture material at those dimensions and that this is seen as a resultant effective variable operating on the apparatus.

5) Claims 17-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Andersen (US Patent No. 5,798,151) in view of Edwards (US Patent No. 3,821,868).

In an apparatus pertaining to the extrusion of flat sheets of material, Andersen 151 teaches various sized dimensions that would be known to use in the die size of the material, given to its industrial state of use as well teaching that the sizes of extruded material although due to the size of the die are a resultant effective variable.

The teachings of Andersen 151 are further reinforced by the teachings of Edwards 868 as discussed below.

Edwards 868 teaches that it is well known in the gypsum art to have wall board, of drywall, of decorating paneling, or the like; and, in one preferred embodiment of the present invention, that panel is 8 feet high, 4 feet wide, and three-eighths of an inch thick -- and thus has dimensions that are standard in the construction industry (Col 8 Lines 34-59).

Therefore at the time of the invention it would be obvious to one with ordinary skill in the art to modify the teachings Andersen 151 with that of Edwards 868 to reinforce the idea that is well known to manufacture material at those dimensions and that this is seen as a resultant effective variable operating on the apparatus.

Response to Arguments

6) Applicant's arguments filed 1/31/06 have been fully considered but they are not persuasive. Examiner notes applicant's arguments regarding the use and positioning of the Nissel 431 and Andersen 151 secondary inlet positioning nor functionality with respect to their pertinent invention. Examiner however feels that the purpose and scope of the secondary inlet utilized in applicant's invention is a recitation of intended use and bears no weight to the capability of the Nissel 431 nor Andersen 151 secondary inlets coupled to the extrusion die teachings of the prior art. It is clearly shown in the drawings of the prior art and indicated in the

specification that those secondary inlets are coupled to an extruder die for aiding or capable of aiding in the adding of material additives. The language utilized by applicant is a recitation of intended use. As well the arguments pertaining to the die exit size, well there is a reason why the combined teachings of Edwards 868 show that it may not be explicitly taught in the primary reference but inherently known and fortified by a secondary reference why those dimensions would be desired for a gypsum molding apparatus.

Conclusion

7) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will


be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. Nagesh Rao whose telephone number is (571) 272-2946. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GNR


ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300/700

2/17/06